

REMARKS

Statement of the Substance of the Examiner Interview

The undersigned representative of the Applicants engaged in a telephone interview with Examiner Nguyen-Ba on November 5, 2003. Claims 1, 5, 34, and 49, in their individual and representative capacity, were discussed. The Henckel et al reference (U.S. Patent No. 5,864,866, hereinafter Henckel) was also discussed. Claims 1 and 49 were discussed in relation to paragraph 9 of the Office Action. Various exemplary wording changes were discussed without specific agreement on one particular form. Claim 34 (and similar) was discussed in relation to paragraph 11 of the Office Action. Applicants stated the usefulness of the order of dependency of the claims as presented and their belief that the claims comply with all pertinent statutory requirements. Claim 5 (and similar) was discussed in relation to paragraph 12 of the Office Action. Applicants addressed the questions posed in paragraph 12 and agreed to reconsider the claim wording. Claim 1 was again discussed, now in relation to Henckel as cited for the §102 and §103 rejections in the Office Action. Applicants highlighted the attribute map disclosed in the specification and its usefulness, for example, to provide the capacity for multiple externalized forms in contrast to Henckel.

Claim Rejections Under 35 USC § 101

Claims 1 and 49 and claims 2-5, 7-21, 23-37, 39-41 and 50-53, 55-69, 71-85, 87-89, which depend from claims 1 and 49, respectively, stand rejected under 35 USC § 101 because the inventions as disclosed in claims 1 and 49 are directed to non-statutory subject matter.

Claims 1 and 49 have each been amended to disclose the tangible embodiment of the program code with the added recitation of "computer-readable storage." Further, Claims 1 and 49 have each been amended to reference execution on computer hardware by the added recitation that the program code is "defining computer operations." Applicants believe the foregoing amendments correct any deficiency of claims 1 and 49, and claims depending therefrom, in regards to §101 and respectfully request the Examiner to remove the rejection.

Claim Rejections Under 35 USC § 112

Claims 34-37 and 39-41, 82-85 and 87-89, and 178-181 and 183-185 stand rejected under 35 U.S.C § 112, second paragraph for an alleged lack of natural flow between each of claims 34, 82, and 178, and the respective claim from which it immediately depends, as indicated at page 4, ¶11 of the Office Action. Applicants respectfully traverse this rejection. As discussed during the telephone interview with the Examiner, Applicants believe that rejected claim 34, for example, does not omit or adversely affect the cooperative relationship between the steps of the claimed method. Claim 34, does not define a step for which establishing a cooperative relationship may be appropriate but, rather, further limits the description element recited first in Claim 1 from which it depends. Applicants further believe the order in which the additional limitation of Claim 34 is presented in the chain of dependency provides value to the prospective issued patent. Applicants view claims 82 and 178 in parallel fashion. Applicants respectfully request the Examiner to reconsider and to remove the §112 rejection to claims 34, 82, 178, and their dependents.

Claims 5, 53, 149, 7, 55, 151, 9, 57, 153, 14, 62, 158, 15, 63, 159, 16, 64, 160, 21, 69, 165, 23, 71, 167, 25, 73, 169, 30, 78, 174, 31, 79, 175, 32, 80, 176, 37, 85, 181, 39, 87, 183, 41, 89, and 185 stand rejected under 35 USC §112 for being vague, indefinite, and confusing. Applicants have carefully reconsidered the claim language and respectfully traverse this rejection. Using claim 5 as a representative example, Applicants believe the claim language is definite and rendered clear by at least the rules for establishing proper antecedent basis. As discussed in the interview with the Examiner, one object can be the attribute of another object. This is supported by the specification, for example, in Figure 6 (item 610) and the associated text starting at page 16, line 21. That established, the occurrences of “attribute” (and the possessive form “attribute’s”) preceded by “the” refer unambiguously back to “an attribute” of claim 2. As regards “component attributes” in line 3 of the claim, this refers to attributes that make up the second object. The understanding that attributes are component parts of objects is supported throughout the specification, including, for example, Figure 6 and associated text as previously cited, and Figure 4 and associated text starting at page 8, line 7. This recitation of “component attributes” in line 3 of the claim does not introduce ambiguity because it is plural in form and cannot match the singular form references to the

“attribute” having antecedent basis in claim 2. Accordingly, Applicants respectfully request the Examiner to reconsider and to remove the §112 rejection to claims 5, 53, 149, 7, 55, 151, 9, 57, 153, 14, 62, 158, 15, 63, 159, 16, 64, 160, 21, 69, 165, 23, 71, 167, 25, 73, 169, 30, 78, 174, 31, 79, 175, 32, 80, 176, 37, 85, 181, 39, 87, 183, 41, 89, and 185.

Claim Rejections Under 35 USC § 102

Claims 1-2, 8-11, 16-18, 24-27, 32-34, 40-41, 50, 56-59, 64-66, 72-75, 80-82, 88-89, 146, 152-155, 160, 162, 168-171, 177-178, 184-185 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 5,864,866 to Henckel et al.

Applicants believe the claims, as amended, distinguish from Henckel. Claims 1 and 49, the two independent method claims falling under this rejection, have each been amended to recite that the description of an object based on its one or more attributes is “usable by program code outside of said object to access the stored values of said one or more attributes for externalization of said values.” As discussed during the interview with the Examiner, Applicants do not understand Henckel to disclose a description that facilitates access to an object’s attributes by program code outside of the object to provide externalization. Such a description makes possible advantages stated for the invention such as externalization of an object to multiple formats (Specification, page 19, lines 12-19). In contrast, Henckel is understood to disclose a stream that includes a separately stored, and already-externalized form of an object attribute value rather than an object description facilitating access to an object attribute value more directly. Figure 4 of Henckel, and accompanying text at column 2, lines 42-62, exemplify this. Stream creation, and externalization in accordance with the prior art as shown in Figure 1 and discussed at page 2, lines 7-20, of the present application, is also discussed in Henckel at column 11, lines 31-64.

Accordingly, Applicants believe that claims 1 and 49, for at least the reasons above, distinguish from Henckel. Applicants note that independent apparatus claim 145 now also recites the “description usable by program code outside of said object to access the stored values of said one or more attributes for externalization of said values,” likewise distinguishing it from Henckel. Because all of the remaining claim rejections under §102(a) incorporate above-addressed rejections

of base claims, Applicants believe that for at least the reasons stated above, all remaining claims distinguish from Henckel. Applicants need not now therefore show invention by the Applicants predating Henckel. Accordingly, Applicants respectfully request the Examiner to remove the rejections under 35 USC §102(a).

Claim Rejections Under 35 USC § 103

Claims 3-5, 7, 12-15, 19-21, 23-25, 28-32, 35-41, 51-53, 55-56, 60-63, 67-69, 71-73, 76-80, 83-85, 87-89, 146-147, 149, 151, 153, 155-160, 162-165, 167-169, 171-176, 178-181, and 183-185 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,864,866 to Henckel et al. in view of U.S. Patent No. 6,345,311 to Breslau et al. Applicants note that the instant §103 rejections all have their basis in the §102 rejections addressed above. Accordingly, Applicants believe that, for at least the reasons stated above in relation to the foundational §102 rejections, all of the instant claims distinguish from the cited prior art. Nonetheless, Applicants also respectfully traverse the rejection of the instant claims under §103(a). Applicants believe that the basis for the combination of Henckel and Breslau stated in the Office Action at page 11, ¶16 (i.e., “because the addition ... would improve Henckel’s process”), is improper because the stated rationale uses impermissible hindsight and is devoid of a convincing line of reasoning based on established scientific principles or legal precedent.

Moreover, Henckel teaches away from any combination that would satisfy the current claims. Henckel states in column 4, lines 32-36, that the focus of object-oriented design is on how the the problem can be broken down into a set of *autonomous entities*, i.e., objects. Henckel goes on to state regarding objects, at column 4, lines 46-52, that:

In particular, all data is encapsulated by the object interface such that all other objects must communicate with that object through its object interface. The only way to retrieve, process or otherwise operate on the encapsulated data is through methods defined on the object. This protects the internal data portion of the object from outside tampering [(emphasis added)].

The inventions represented in the claims of the present application are contrary. Each claim, directly or by dependency, now recites a “description usable by program code outside of said object to access the stored values of said one or more attributes for externalization of said values” (emphasis added). The specification recognizes this contrary aspect in its description of the preferred embodiment, for example, at page 10, line 29, through page 11, line 7.

For the reasons stated above, Applicants respectfully request the Examiner to remove the rejections under 35 USC §103.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

Applicants thank the Examiner for his thoughtful attention to the present application.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 007532000500. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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Attachments: Appendix A,
with two replacements sheets
and two annotated sheets of figures